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<150> US 60/477,470

<151> 2003-06-10

<150> US 60/503,388

<151> 2003-09-16

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Leu Gln Thr Asn Ser Gly Ala Val Ala Arg Met Ser Gly Gly Ser Leu
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His Gln Glu Gln Glu Pro Glu Leu Gly Gly Ala His Ala Ala Asn Val
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Val Thr Val Ser Ala Leu Ser Ala Asp Thr Ser Leu Ser Ser Ser Ser
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Pro Ser Arg Val Pro Ala Ser Val Ala Lys Ala Pro Ala Asn Thr Ile
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Pro Pro Glu Arg Asn Ser Lys Gln Ala Lys Glu Thr Pro Glu Gly Pro
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Glu Asn Glu Tyr Ser Ser Phe Arg Ile Gln Val Asp Glu Ser Pro Ser
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Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
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Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
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Glu Leu Ser Lys Pro Gly Val Leu Ala Ser Gln Val Asp Ser Pro Phe
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Ser Gly Cys Phe Glu Asp Leu Ala Ile Ser Ala Ser Thr Ser Leu Gly
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Met Gly Pro Cys His Gly Pro Glu Glu Asn Glu Tyr Lys Ser Glu Gly
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<211> 540

<212> PRT

<213> Homo sapiens

<400> 6

Met Pro Phe Ala Glu Asp Lys Thr Tyr Lys Tyr Ile Cys Arg Asn Phe
1 5 10 15

Ser Asn Phe Cys Asn Val Asp Val Val Glu Ile Leu Pro Tyr Leu Pro
20 25 30

Cys Leu Thr Ala Arg Asp Gln Asp Arg Leu Arg Ala Thr Cys Thr Leu
35 40 45

Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
50 55 60

Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
65 70 75 80

Leu Val Asp Leu Ala Asp Glu Val Ala Ser Val Tyr Gln Ser Tyr Gln
85 90 95

Pro Arg Thr Ser Asp Arg Pro Pro Asp Pro Leu Glu Pro Pro Ser Leu
100 105 110

Pro Ala Glu Arg Pro Gly Pro Pro Thr Pro Ala Ala Ala His Ser Ile
115 120 125

Pro Tyr Asn Ser Cys Arg Glu Lys Glu Pro Ser Tyr Pro Met Pro Val
130 135 140

Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn Ser Glu Gln Ala
145 150 155 160

```
Leu Gln Thr Leu Ser Pro Arg Ala Ile Pro Arg Asn Pro Asp Gly Gly
                165                 170                 175

Pro Leu Glu Ser Ser Ser Asp Leu Ala Ala Leu Ser Pro Leu Thr Ser
            180                 185                 190

Ser Gly His Gln Glu Gln Asp Thr Glu Leu Gly Ser Thr His Thr Ala
        195                 200                 205

Gly Ala Thr Ser Ser Leu Thr Pro Ser Arg Gly Pro Val Ser Pro Ser
    210                 215                 220

Val Ser Phe Gln Pro Leu Ala Arg Ser Thr Pro Arg Ala Ser Arg Leu
225                 230                 235                 240

Pro Gly Pro Thr Gly Ser Val Val Ser Thr Gly Thr Ser Phe Ser Ser
                245                 250                 255

Ser Ser Pro Gly Leu Ala Ser Ala Gly Ala Ala Glu Gly Lys Gln Gly
            260                 265                 270

Ala Glu Ser Asp Gln Ala Glu Pro Ile Ile Cys Ser Ser Gly Ala Glu
        275                 280                 285

Ala Pro Ala Asn Ser Leu Pro Ser Lys Val Pro Thr Thr Leu Met Pro
    290                 295                 300

Val Asn Thr Val Ala Leu Lys Val Pro Ala Asn Pro Ala Ser Val Ser
305                 310                 315                 320

Thr Val Pro Ser Lys Leu Pro Thr Ser Ser Lys Pro Pro Gly Ala Val
                325                 330                 335

Pro Ser Asn Ala Leu Thr Asn Pro Ala Pro Ser Lys Leu Pro Ile Asn
            340                 345                 350

Ser Thr Arg Ala Gly Met Val Pro Ser Lys Val Pro Thr Ser Met Val
        355                 360                 365

Leu Thr Lys Val Ser Ala Ser Thr Val Pro Thr Asp Gly Ser Ser Arg
    370                 375                 380

Asn Glu Glu Thr Pro Ala Ala Pro Thr Pro Ala Gly Ala Thr Gly Gly
385                 390                 395                 400

Ser Ser Ala Trp Leu Asp Ser Ser Ser Glu Asn Arg Gly Leu Gly Ser
                405                 410                 415
```

Glu Leu Ser Lys Pro Gly Val Leu Ala Ser Gln Val Asp Ser Pro Phe
420 425 430

Ser Gly Cys Phe Glu Asp Leu Ala Ile Ser Ala Ser Thr Ser Leu Gly
435 440 445

Met Gly Pro Cys His Gly Pro Glu Glu Asn Glu Tyr Lys Ser Glu Gly
450 455 460

Thr Phe Gly Ile His Val Ala Glu Asn Pro Ser Ile Gln Leu Leu Glu
465 470 475 480

Gly Asn Pro Gly Pro Pro Ala Asp Pro Asp Gly Gly Pro Arg Pro Gln
485 490 495

Ala Asp Arg Lys Phe Gln Glu Arg Glu Val Pro Cys His Arg Pro Ser
500 505 510

Pro Gly Ala Leu Trp Leu Gln Val Ala Val Thr Gly Val Leu Val Val
515 520 525

Thr Leu Leu Val Val Leu Tyr Arg Arg Arg Leu His
530 535 540

<210> 7

<211> 508

<212> PRT

<213> artificial sequence

<220>

<223> fragment

<400> 7

Met Pro Phe Ala Glu Asp Lys Thr Tyr Lys Tyr Ile Cys Arg Asn Phe
1 5 10 15

Ser Asn Phe Cys Asn Val Asp Val Val Glu Ile Leu Pro Tyr Leu Pro
20 25 30

Cys Leu Thr Ala Arg Asp Gln Asp Arg Leu Arg Ala Thr Cys Thr Leu
35 40 45

Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
50 55 60

```
Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
65                  70                  75                  80

Leu Val Asp Leu Ala Asp Glu Val Ala Ser Val Tyr Glu Ser Tyr Gln
                85                  90                  95

Pro Arg Thr Ser Asp Arg Pro Pro Asp Pro Leu Glu Pro Pro Ser Leu
            100                 105                 110

Pro Ala Glu Arg Pro Gly Pro Pro Thr Pro Ala Ala Ala His Ser Ile
        115                 120                 125

Pro Tyr Asn Ser Cys Arg Glu Lys Glu Pro Ser Tyr Pro Met Pro Val
    130                 135                 140

Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn Ser Glu Gln Ala
145                 150                 155                 160

Leu Gln Thr Leu Ser Pro Arg Ala Ile Pro Arg Asn Pro Asp Gly Gly
                165                 170                 175

Pro Leu Glu Ser Ser Ser Asp Leu Ala Ala Leu Ser Pro Leu Thr Ser
            180                 185                 190

Ser Gly His Gln Glu Lys Asp Thr Glu Leu Gly Ser Thr His Thr Ala
        195                 200                 205

Gly Ala Thr Ser Ser Leu Thr Pro Ser Arg Gly Pro Val Ser Pro Ser
    210                 215                 220

Val Ser Phe Gln Pro Leu Ala Arg Ser Thr Pro Arg Ala Ser Arg Leu
225                 230                 235                 240

Pro Gly Pro Thr Gly Ser Val Val Ser Thr Gly Thr Ser Phe Ser Ser
                245                 250                 255

Ser Ser Pro Gly Leu Ala Ser Ala Gly Ala Ala Glu Gly Lys Gln Gly
            260                 265                 270

Ala Glu Ser Asp Gln Ala Pro Ile Ile Cys Ser Ser Gly Ala Glu Ala
        275                 280                 285

Pro Ala Asn Ser Leu Pro Ser Lys Val Pro Thr Thr Leu Met Pro Val
    290                 295                 300

Asn Thr Val Ala Leu Lys Val Pro Ala Asn Pro Ala Ser Val Ser Thr
```

305 310 315 320

Val Pro Ser Lys Leu Pro Thr Ser Ser Lys Pro Pro Gly Ala Val Pro
325 330 335

Asn Ala Leu Thr Asn Pro Ala Pro Ser Lys Leu Pro Ile Asn Ser Thr
340 345 350

Arg Ala Gly Met Val Pro Ser Lys Val Pro Thr Ser Met Val Leu Thr
355 360 365

Lys Val Ser Ala Ser Thr Val Pro Thr Asp Gly Ser Ser Arg Asn Glu
370 375 380

Glu Thr Pro Ala Ala Pro Thr Pro Ala Gly Ala Thr Gly Gly Ser Ser
385 390 395 400

Ala Trp Leu Asp Ser Ser Phe Glu Asn Arg Gly Leu Gly Ser Glu Leu
405 410 415

Ser Lys Pro Gly Val Leu Ala Ser Gln Val Asp Ser Pro Phe Ser Gly
420 425 430

Cys Phe Glu Asp Leu Ala Ile Ser Ala Ser Thr Ser Leu Gly Met Gly
435 440 445

Pro Cys His Gly Pro Glu Glu Asn Glu Tyr Lys Ser Glu Gly Thr Phe
450 455 460

Gly Ile His Val Ala Glu Asn Pro Ser Ile Gln Leu Leu Glu Gly Asn
465 470 475 480

Pro Gly Pro Pro Ala Asp Pro Asp Gly Gly Pro Arg Pro Gln Ala Asp
485 490 495

Arg Lys Phe Gln Glu Arg Glu Val Pro Cys His Arg
500 505

<210> 8

<211> 239

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 8

```
Met Pro Phe Ala Glu Asp Lys Thr Tyr Lys Tyr Ile Cys Arg Asn Phe
1               5                  10                  15

Ser Asn Phe Cys Asn Val Asp Val Val Glu Ile Leu Pro Tyr Leu Pro
            20                  25                  30

Cys Leu Thr Ala Arg Asp Gln Asp Arg Leu Arg Ala Thr Cys Thr Leu
        35                  40                  45

Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
    50                  55                  60

Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
65                  70                  75                  80

Leu Val Asp Leu Ala Asp Glu Val Ala Ser Val Tyr Glu Ser Tyr Gln
                85                  90                  95

Pro Arg Thr Ser Asp Arg Pro Pro Asp Pro Leu Glu Pro Pro Ser Leu
            100                 105                 110

Pro Ala Glu Arg Pro Gly Pro Pro Thr Pro Ala Ala Ala His Ser Ile
        115                 120                 125

Pro Tyr Asn Ser Cys Arg Glu Lys Glu Pro Ser Tyr Pro Met Pro Val
    130                 135                 140

Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn Ser Glu Gln Ala
145                 150                 155                 160

Leu Gln Thr Leu Ser Pro Arg Ala Ile Pro Arg Asn Pro Asp Gly Gly
                165                 170                 175

Pro Leu Glu Ser Ser Ser Asp Leu Ala Ala Leu Ser Pro Leu Thr Ser
            180                 185                 190

Ser Gly His Gln Glu Lys Asp Thr Glu Leu Gly Ser Thr His Thr Ala
        195                 200                 205

Gly Ala Thr Ser Ser Leu Thr Pro Ser Arg Gly Pro Val Ser Pro Ser
    210                 215                 220

Val Ser Phe Gln Pro Leu Ala Arg Ser Thr Pro Arg Ala Ser Arg
225                 230                 235
```

<210> 9

<211> 236

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 9

```
Met Pro Phe Ala Glu Asp Lys Thr Tyr Lys Tyr Ile Cys Arg Asn Phe
1               5                  10                  15

Ser Asn Phe Cys Asn Val Asp Val Val Glu Ile Leu Pro Tyr Leu Pro
            20                  25                  30

Cys Leu Thr Ala Arg Asp Gln Asp Arg Leu Arg Ala Thr Cys Thr Leu
        35                  40                  45

Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
    50                  55                  60

Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
65                  70                  75                  80

Leu Val Asp Leu Ala Asp Glu Val Ala Ser Val Tyr Glu Ser Tyr Gln
                85                  90                  95

Pro Arg Thr Ser Asp Arg Pro Pro Asp Pro Leu Glu Pro Pro Ser Leu
            100                 105                 110

Pro Ala Glu Arg Pro Gly Pro Pro Thr Pro Ala Ala Ala His Ser Ile
        115                 120                 125

Pro Tyr Asn Ser Cys Arg Glu Lys Glu Pro Ser Tyr Pro Met Pro Val
    130                 135                 140

Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn Ser Glu Gln Ala
145                 150                 155                 160

Leu Gln Thr Leu Ser Pro Arg Ala Ile Pro Arg Asn Pro Asp Gly Gly
                165                 170                 175

Pro Leu Glu Ser Ser Ser Asp Leu Ala Ala Leu Ser Pro Leu Thr Ser
            180                 185                 190
```

Ser Gly His Gln Glu Lys Asp Thr Glu Leu Gly Ser Thr His Thr Ala
195 200 205

Gly Ala Thr Ser Ser Leu Thr Pro Ser Arg Gly Pro Val Ser Pro Ser
210 215 220

Val Ser Phe Gln Pro Leu Ala Arg Ser Thr Pro Arg
225 230 235

<210> 10

<211> 232

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 10

Met Pro Phe Ala Glu Asp Lys Thr Tyr Lys Tyr Ile Cys Arg Asn Phe
1 5 10 15

Ser Asn Phe Cys Asn Val Asp Val Val Glu Ile Leu Pro Tyr Leu Pro
20 25 30

Cys Leu Thr Ala Arg Asp Gln Asp Arg Leu Arg Ala Thr Cys Thr Leu
35 40 45

Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
50 55 60

Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
65 70 75 80

Leu Val Asp Leu Ala Asp Glu Val Ala Ser Val Tyr Glu Ser Tyr Gln
85 90 95

Pro Arg Thr Ser Asp Arg Pro Pro Asp Pro Leu Glu Pro Pro Ser Leu
100 105 110

Pro Ala Glu Arg Pro Gly Pro Pro Thr Pro Ala Ala Ala His Ser Ile
115 120 125

Pro Tyr Asn Ser Cys Arg Glu Lys Glu Pro Ser Tyr Pro Met Pro Val

130 135 140

Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn Ser Glu Gln Ala
145 150 155 160

Leu Gln Thr Leu Ser Pro Arg Ala Ile Pro Arg Asn Pro Asp Gly Gly
165 170 175

Pro Leu Glu Ser Ser Ser Asp Leu Ala Ala Leu Ser Pro Leu Thr Ser
180 185 190

Ser Gly His Gln Glu Lys Asp Thr Glu Leu Gly Ser Thr His Thr Ala
195 200 205

Gly Ala Thr Ser Ser Leu Thr Pro Ser Arg Gly Pro Val Ser Pro Ser
210 215 220

Val Ser Phe Gln Pro Leu Ala Arg
225 230

<210> 11

<211> 171

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 11

Met Pro Phe Ala Glu Asp Lys Thr Tyr Lys Tyr Ile Cys Arg Asn Phe
1 5 10 15

Ser Asn Phe Cys Asn Val Asp Val Val Glu Ile Leu Pro Tyr Leu Pro
20 25 30

Cys Leu Thr Ala Arg Asp Gln Asp Arg Leu Arg Ala Thr Cys Thr Leu
35 40 45

Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
50 55 60

Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
65 70 75 80

Leu Val Asp Leu Ala Asp Glu Val Ala Ser Val Tyr Glu Ser Tyr Gln
85 90 95

Pro Arg Thr Ser Asp Arg Pro Pro Asp Pro Leu Glu Pro Pro Ser Leu
100 105 110

Pro Ala Glu Arg Pro Gly Pro Pro Thr Pro Ala Ala Ala His Ser Ile
115 120 125

Pro Tyr Asn Ser Cys Arg Glu Lys Glu Pro Ser Tyr Pro Met Pro Val
130 135 140

Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn Ser Glu Gln Ala
145 150 155 160

Leu Gln Thr Leu Ser Pro Arg Ala Ile Pro Arg
165 170

<210> 12

<211> 167

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 12

Met Pro Phe Ala Glu Asp Lys Thr Tyr Lys Tyr Ile Cys Arg Asn Phe
1 5 10 15

Ser Asn Phe Cys Asn Val Asp Val Val Glu Ile Leu Pro Tyr Leu Pro
20 25 30

Cys Leu Thr Ala Arg Asp Gln Asp Arg Leu Arg Ala Thr Cys Thr Leu
35 40 45

Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
50 55 60

Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
65 70 75 80

Leu Val Asp Leu Ala Asp Glu Val Ala Ser Val Tyr Glu Ser Tyr Gln
85 90 95

Pro Arg Thr Ser Asp Arg Pro Pro Asp Pro Leu Glu Pro Pro Ser Leu
100 105 110

Pro Ala Glu Arg Pro Gly Pro Pro Thr Pro Ala Ala Ala His Ser Ile
115 120 125

Pro Tyr Asn Ser Cys Arg Glu Lys Glu Pro Ser Tyr Pro Met Pro Val
130 135 140

Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn Ser Glu Gln Ala
145 150 155 160

Leu Gln Thr Leu Ser Pro Arg
165

<210> 13

<211> 341

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 13

Ala Ile Pro Arg Asn Pro Asp Gly Gly Pro Leu Glu Ser Ser Ser Asp
1 5 10 15

Leu Ala Ala Leu Ser Pro Leu Thr Ser Ser Gly His Gln Glu Lys Asp
20 25 30

Thr Glu Leu Gly Ser Thr His Thr Ala Gly Ala Thr Ser Ser Leu Thr
35 40 45

Pro Ser Arg Gly Pro Val Ser Pro Ser Val Ser Phe Gln Pro Leu Ala
50 55 60

Arg Ser Thr Pro Arg Ala Ser Arg Leu Pro Gly Pro Thr Gly Ser Val
65 70 75 80

Val Ser Thr Gly Thr Ser Phe Ser Ser Ser Ser Pro Gly Leu Ala Ser
85 90 95

Ala Gly Ala Ala Glu Gly Lys Gln Gly Ala Glu Ser Asp Gln Ala Pro
100 105 110

Ile Ile Cys Ser Ser Gly Ala Glu Ala Pro Ala Asn Ser Leu Pro Ser
115 120 125

Lys Val Pro Thr Thr Leu Met Pro Val Asn Thr Val Ala Leu Lys Val
130 135 140

Pro Ala Asn Pro Ala Ser Val Ser Thr Val Pro Ser Lys Leu Pro Thr
145 150 155 160

Ser Ser Lys Pro Pro Gly Ala Val Pro Asn Ala Leu Thr Asn Pro Ala
165 170 175

Pro Ser Lys Leu Pro Ile Asn Ser Thr Arg Ala Gly Met Val Pro Ser
180 185 190

Lys Val Pro Thr Ser Met Val Leu Thr Lys Val Ser Ala Ser Thr Val
195 200 205

Pro Thr Asp Gly Ser Ser Arg Asn Glu Glu Thr Pro Ala Ala Pro Thr
210 215 220

Pro Ala Gly Ala Thr Gly Gly Ser Ser Ala Trp Leu Asp Ser Ser Phe
225 230 235 240

Glu Asn Arg Gly Leu Gly Ser Glu Leu Ser Lys Pro Gly Val Leu Ala
245 250 255

Ser Gln Val Asp Ser Pro Phe Ser Gly Cys Phe Glu Asp Leu Ala Ile
260 265 270

Ser Ala Ser Thr Ser Leu Gly Met Gly Pro Cys His Gly Pro Glu Glu
275 280 285

Asn Glu Tyr Lys Ser Glu Gly Thr Phe Gly Ile His Val Ala Glu Asn
290 295 300

Pro Ser Ile Gln Leu Leu Glu Gly Asn Pro Gly Pro Pro Ala Asp Pro
305 310 315 320

Asp Gly Gly Pro Arg Pro Gln Ala Asp Arg Lys Phe Gln Glu Arg Glu
325 330 335

Val Pro Cys His Arg
340

<210> 14

<211> 337

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 14

```
Asn Pro Asp Gly Gly Pro Leu Glu Ser Ser Ser Asp Leu Ala Ala Leu
1               5                  10                  15

Ser Pro Leu Thr Ser Ser Gly His Gln Glu Lys Asp Thr Glu Leu Gly
            20                  25                  30

Ser Thr His Thr Ala Gly Ala Thr Ser Ser Leu Thr Pro Ser Arg Gly
        35                  40                  45

Pro Val Ser Pro Ser Val Ser Phe Gln Pro Leu Ala Arg Ser Thr Pro
    50                  55                  60

Arg Ala Ser Arg Leu Pro Gly Pro Thr Gly Ser Val Val Ser Thr Gly
65                  70                  75                  80

Thr Ser Phe Ser Ser Ser Ser Pro Gly Leu Ala Ser Ala Gly Ala Ala
                85                  90                  95

Glu Gly Lys Gln Gly Ala Glu Ser Asp Gln Ala Pro Ile Ile Cys Ser
            100                 105                 110

Ser Gly Ala Glu Ala Pro Ala Asn Ser Leu Pro Ser Lys Val Pro Thr
        115                 120                 125

Thr Leu Met Pro Val Asn Thr Val Ala Leu Lys Val Pro Ala Asn Pro
    130                 135                 140

Ala Ser Val Ser Thr Val Pro Ser Lys Leu Pro Thr Ser Ser Lys Pro
145                 150                 155                 160

Pro Gly Ala Val Pro Asn Ala Leu Thr Asn Pro Ala Pro Ser Lys Leu
                165                 170                 175

Pro Ile Asn Ser Thr Arg Ala Gly Met Val Pro Ser Lys Val Pro Thr
            180                 185                 190
```

Ser Met Val Leu Thr Lys Val Ser Ala Ser Thr Val Pro Thr Asp Gly
195 200 205

Ser Ser Arg Asn Glu Glu Thr Pro Ala Ala Pro Thr Pro Ala Gly Ala
210 215 220

Thr Gly Gly Ser Ser Ala Trp Leu Asp Ser Ser Phe Glu Asn Arg Gly
225 230 235 240

Leu Gly Ser Glu Leu Ser Lys Pro Gly Val Leu Ala Ser Gln Val Asp
245 250 255

Ser Pro Phe Ser Gly Cys Phe Glu Asp Leu Ala Ile Ser Ala Ser Thr
260 265 270

Ser Leu Gly Met Gly Pro Cys His Gly Pro Glu Glu Asn Glu Tyr Lys
275 280 285

Ser Glu Gly Thr Phe Gly Ile His Val Ala Glu Asn Pro Ser Ile Gln
290 295 300

Leu Leu Glu Gly Asn Pro Gly Pro Pro Ala Asp Pro Asp Gly Gly Pro
305 310 315 320

Arg Pro Gln Ala Asp Arg Lys Phe Gln Glu Arg Glu Val Pro Cys His
325 330 335

Arg

<210> 15

<211> 276

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 15

Ser Thr Pro Arg Ala Ser Arg Leu Pro Gly Pro Thr Gly Ser Val Val
1 5 10 15

Ser Thr Gly Thr Ser Phe Ser Ser Ser Ser Pro Gly Leu Ala Ser Ala
20 25 30

Gly Ala Ala Glu Gly Lys Gln Gly Ala Glu Ser Asp Gln Ala Pro Ile
35 40 45

Ile Cys Ser Ser Gly Ala Glu Ala Pro Ala Asn Ser Leu Pro Ser Lys
50 55 60

Val Pro Thr Thr Leu Met Pro Val Asn Thr Val Ala Leu Lys Val Pro
65 70 75 80

Ala Asn Pro Ala Ser Val Ser Thr Val Pro Ser Lys Leu Pro Thr Ser
85 90 95

Ser Lys Pro Pro Gly Ala Val Pro Asn Ala Leu Thr Asn Pro Ala Pro
100 105 110

Ser Lys Leu Pro Ile Asn Ser Thr Arg Ala Gly Met Val Pro Ser Lys
115 120 125

Val Pro Thr Ser Met Val Leu Thr Lys Val Ser Ala Ser Thr Val Pro
130 135 140

Thr Asp Gly Ser Ser Arg Asn Glu Glu Thr Pro Ala Ala Pro Thr Pro
145 150 155 160

Ala Gly Ala Thr Gly Gly Ser Ser Ala Trp Leu Asp Ser Ser Phe Glu
165 170 175

Asn Arg Gly Leu Gly Ser Glu Leu Ser Lys Pro Gly Val Leu Ala Ser
180 185 190

Gln Val Asp Ser Pro Phe Ser Gly Cys Phe Glu Asp Leu Ala Ile Ser
195 200 205

Ala Ser Thr Ser Leu Gly Met Gly Pro Cys His Gly Pro Glu Glu Asn
210 215 220

Glu Tyr Lys Ser Glu Gly Thr Phe Gly Ile His Val Ala Glu Asn Pro
225 230 235 240

Ser Ile Gln Leu Leu Glu Gly Asn Pro Gly Pro Pro Ala Asp Pro Asp
245 250 255

Gly Gly Pro Arg Pro Gln Ala Asp Arg Lys Phe Gln Glu Arg Glu Val
260 265 270

Pro Cys His Arg

275

<210> 16

<211> 272

<212> PRT

<213> artificial sequence

<220>

<223> Fragment

<400> 16

Ala Ser Arg Leu Pro Gly Pro Thr Gly Ser Val Val Ser Thr Gly Thr
1 5 10 15

Ser Phe Ser Ser Ser Ser Pro Gly Leu Ala Ser Ala Gly Ala Ala Glu
20 25 30

Gly Lys Gln Gly Ala Glu Ser Asp Gln Ala Pro Ile Ile Cys Ser Ser
35 40 45

Gly Ala Glu Ala Pro Ala Asn Ser Leu Pro Ser Lys Val Pro Thr Thr
50 55 60

Leu Met Pro Val Asn Thr Val Ala Leu Lys Val Pro Ala Asn Pro Ala
65 70 75 80

Ser Val Ser Thr Val Pro Ser Lys Leu Pro Thr Ser Ser Lys Pro Pro
85 90 95

Gly Ala Val Pro Asn Ala Leu Thr Asn Pro Ala Pro Ser Lys Leu Pro
100 105 110

Ile Asn Ser Thr Arg Ala Gly Met Val Pro Ser Lys Val Pro Thr Ser
115 120 125

Met Val Leu Thr Lys Val Ser Ala Ser Thr Val Pro Thr Asp Gly Ser
130 135 140

Ser Arg Asn Glu Glu Thr Pro Ala Ala Pro Thr Pro Ala Gly Ala Thr
145 150 155 160

Gly Gly Ser Ser Ala Trp Leu Asp Ser Ser Phe Glu Asn Arg Gly Leu
165 170 175

Gly Ser Glu Leu Ser Lys Pro Gly Val Leu Ala Ser Gln Val Asp Ser
180 185 190

Pro Phe Ser Gly Cys Phe Glu Asp Leu Ala Ile Ser Ala Ser Thr Ser
195 200 205

Leu Gly Met Gly Pro Cys His Gly Pro Glu Glu Asn Glu Tyr Lys Ser
210 215 220

Glu Gly Thr Phe Gly Ile His Val Ala Glu Asn Pro Ser Ile Gln Leu
225 230 235 240

Leu Glu Gly Asn Pro Gly Pro Pro Ala Asp Pro Asp Gly Gly Pro Arg
245 250 255

Pro Gln Ala Asp Arg Lys Phe Gln Glu Arg Glu Val Pro Cys His Arg
260 265 270

<210> 17

<211> 269

<212> PRT

<213> Artificial Sequence

<220>

<223> Fragment

<400> 17

Leu Pro Gly Pro Thr Gly Ser Val Val Ser Thr Gly Thr Ser Phe Ser
1 5 10 15

Ser Ser Ser Pro Gly Leu Ala Ser Ala Gly Ala Ala Glu Gly Lys Gln
20 25 30

Gly Ala Glu Ser Asp Gln Ala Pro Ile Ile Cys Ser Ser Gly Ala Glu
35 40 45

Ala Pro Ala Asn Ser Leu Pro Ser Lys Val Pro Thr Thr Leu Met Pro
50 55 60

Val Asn Thr Val Ala Leu Lys Val Pro Ala Asn Pro Ala Ser Val Ser
65 70 75 80

Thr Val Pro Ser Lys Leu Pro Thr Ser Ser Lys Pro Pro Gly Ala Val
85 90 95

Pro Asn Ala Leu Thr Asn Pro Ala Pro Ser Lys Leu Pro Ile Asn Ser
100 105 110

Thr Arg Ala Gly Met Val Pro Ser Lys Val Pro Thr Ser Met Val Leu
115 120 125

Thr Lys Val Ser Ala Ser Thr Val Pro Thr Asp Gly Ser Ser Arg Asn
130 135 140

Glu Glu Thr Pro Ala Ala Pro Thr Pro Ala Gly Ala Thr Gly Gly Ser
145 150 155 160

Ser Ala Trp Leu Asp Ser Ser Phe Glu Asn Arg Gly Leu Gly Ser Glu
165 170 175

Leu Ser Lys Pro Gly Val Leu Ala Ser Gln Val Asp Ser Pro Phe Ser
180 185 190

Gly Cys Phe Glu Asp Leu Ala Ile Ser Ala Ser Thr Ser Leu Gly Met
195 200 205

Gly Pro Cys His Gly Pro Glu Glu Asn Glu Tyr Lys Ser Glu Gly Thr
210 215 220

Phe Gly Ile His Val Ala Glu Asn Pro Ser Ile Gln Leu Leu Glu Gly
225 230 235 240

Asn Pro Gly Pro Pro Ala Asp Pro Asp Gly Gly Pro Arg Pro Gln Ala
245 250 255

Asp Arg Lys Phe Gln Glu Arg Glu Val Pro Cys His Arg
260 265

<210> 18

<211> 510

<212> PRT

<213> Artificial Sequence

<220>

<223> Fragment

<400> 18

Met Pro Phe Ala Glu Asp Lys Thr Tyr Lys Tyr Ile Cys Arg Asn Phe
1 5 10 15

Ser Asn Phe Cys Asn Val Asp Val Val Glu Ile Leu Pro Tyr Leu Pro
20 25 30

Cys Leu Thr Ala Arg Asp Gln Asp Arg Leu Arg Ala Thr Cys Thr Leu
35 40 45

Ser Gly Asn Arg Asp Thr Leu Trp His Leu Phe Asn Thr Leu Gln Arg
50 55 60

Arg Pro Gly Trp Val Glu Tyr Phe Ile Ala Ala Leu Arg Gly Cys Glu
65 70 75 80

Leu Val Asp Leu Ala Asp Glu Val Ala Ser Val Tyr Glu Ser Tyr Gln
85 90 95

Pro Arg Thr Ser Asp Arg Pro Pro Asp Pro Leu Glu Pro Pro Ser Leu
100 105 110

Pro Ala Glu Arg Pro Gly Pro Pro Thr Pro Ala Ala Ala His Ser Ile
115 120 125

Pro Tyr Asn Ser Cys Arg Glu Lys Glu Pro Ser Tyr Pro Met Pro Val
130 135 140

Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn Ser Glu Gln Ala
145 150 155 160

Leu Gln Thr Leu Ser Pro Arg Ala Ile Pro Arg Asn Pro Asp Gly Gly
165 170 175

Pro Leu Glu Ser Ser Ser Asp Leu Ala Ala Leu Ser Pro Leu Thr Ser
180 185 190

Ser Gly His Gln Glu Lys Asp Thr Glu Leu Gly Ser Thr His Thr Ala
195 200 205

Gly Ala Thr Ser Ser Leu Thr Pro Ser Arg Gly Pro Val Ser Pro Ser
210 215 220

Val Ser Phe Gln Pro Leu Ala Arg Ser Thr Pro Arg Ala Ser Arg Leu
225 230 235 240

Pro Gly Pro Thr Gly Ser Val Val Ser Thr Gly Thr Ser Phe Ser Ser
245 250 255

Ser Ser Pro Gly Leu Ala Ser Ala Gly Ala Ala Glu Gly Lys Gln Gly

260 265 270

Ala Glu Ser Asp Gln Ala Glu Pro Ile Ile Cys Ser Ser Gly Ala Glu
275 280 285

Ala Pro Ala Asn Ser Leu Pro Ser Lys Val Pro Thr Thr Leu Met Pro
290 295 300

Val Asn Thr Val Ala Leu Lys Val Pro Ala Asn Pro Ala Ser Val Ser
305 310 315 320

Thr Val Pro Ser Lys Leu Pro Thr Ser Ser Lys Pro Pro Gly Ala Val
325 330 335

Pro Ser Asn Ala Leu Thr Asn Pro Ala Pro Ser Lys Leu Pro Ile Asn
340 345 350

Ser Thr Arg Ala Gly Met Val Pro Ser Lys Val Pro Thr Ser Met Val
355 360 365

Leu Thr Lys Val Ser Ala Ser Thr Val Pro Thr Asp Gly Ser Ser Arg
370 375 380

Asn Glu Glu Thr Pro Ala Ala Pro Thr Pro Ala Gly Ala Thr Gly Gly
385 390 395 400

Ser Ser Ala Trp Leu Asp Ser Ser Phe Glu Asn Arg Gly Leu Gly Ser
405 410 415

Glu Leu Ser Lys Pro Gly Val Leu Ala Ser Gln Val Asp Ser Pro Phe
420 425 430

Ser Gly Cys Phe Glu Asp Leu Ala Ile Ser Ala Ser Thr Ser Leu Gly
435 440 445

Met Gly Pro Cys His Gly Pro Glu Glu Asn Glu Tyr Lys Ser Glu Gly
450 455 460

Thr Phe Gly Ile His Val Ala Glu Asn Pro Ser Ile Gln Leu Leu Glu
465 470 475 480

Gly Asn Pro Gly Pro Pro Ala Asp Pro Asp Gly Gly Pro Arg Pro Gln
485 490 495

Ala Asp Arg Lys Phe Gln Glu Arg Glu Val Pro Cys His Arg
500 505 510

<210> 19

<211> 20

<212> DNA

<213> artificial sequence

<220>

<223> Primer Rantes sense

<400> 19
cgctgtcatc ctcattgcta 20

<210> 20

<211> 20

<212> DNA

<213> artificial sequence

<220>

<223> Primer Rantes antisense

<400> 20
gcacttgcca ctggtgtaga 20

<210> 21

<211> 20

<212> DNA

<213> artificial sequence

<220>

<223> Primer IL-8 sense

<400> 21
ctgcgccaac acagaaatta 20

<210> 22

<211> 20

<212> DNA

<213> artificial sequence

<220>

<223> Primer IL-8 antisense

<400> 22
tgaattctca gccctcttca 20

<210> 23

<211> 21

<212> PRT

<213> artificial sequence

<220>

<223> Peptide for immunization

<400> 23

Pro Met Pro Val Gln Glu Thr Gln Ala Pro Glu Ser Pro Gly Glu Asn
1 5 10 15

Ser Glu Gln Ala Leu
20

<210> 24

<211> 15

<212> PRT

<213> artificial sequence

<220>

<223> Peptide for immunozation

<400> 24

Pro Ala Asp Pro Asp Gly Gly Pro Arg Pro Gln Ala Asp Arg Lys
1 5 10 15

<210> 25

<211> 12

<212> PRT

<213> artificial sequence

<220>

<223> Peptide for immunozation

<400> 25

Ser Lys Leu Pro Ile Asn Ser Thr Arg Ala Gly Met
1 5 10

<210> 26

<211> 7

<212> PRT

<213> artificial sequence

<220>

<223> peptide pWobble

<220>

<221> MISC_FEATURE

<222> (1)..(5)

<223> Xaa = Leu or Val

<400> 26

Xaa Pro Ser Lys Xaa Pro Thr
1 5

<210> 27

<211> 7

<212> PRT

<213> artificial sequence

<220>

<223> Peptide p3061

<400> 27

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